

P01501WQ 20040603 RevisedSpecification.wpd

CLAIMS

1. A marine craft capable of planing, the marine craft comprising a hull and a passenger area generally within the hull and means between the hull and the passenger area for absorbing impact energy, characterised in that the means for absorbing impact energy includes a structure arranged to absorb impact energy by permanently deforming in the event of the craft suffering an impact in the region of the structure.
2. A marine craft as claimed in claim 1, in which the passenger area is spaced inwardly from at least a portion of the hull and the means for absorbing impact energy is located between the passenger area and the portion of the hull.
3. A marine craft as claimed in claim 1 or claim 2, in which the deformable structure is mounted between the hull and a structural component of the craft.
4. A marine craft as claimed in claim 3, in which the structural component is positioned adjacent a peripheral region of the passenger area.
5. A marine craft as claimed in claim 3 or claim 4, in which the structural component is a bulkhead which separates the passenger area from at least a portion of the hull.
6. A marine craft as claimed in claim 5, in which the bulkhead is adapted to prevent, or at least to resist, movement of water into the passenger area from the hull portion.
7. A marine craft as claimed in any one of claims 3 to 6, in which the deformable structure comprises at least one deformable tube which extends between the hull and the structural component, a first end of the or each tube being associated with the hull, and a second end of the or each tube being associated with the structural component.

P01501W0 20040603 RevisedSpecification.wpd

- 5
8. A marine craft as claimed in claim 7, in which the deformable structure comprises two or more deformable tubes extending between the hull and the structural component, the arrangement being such that at least two of the tubes extend at an angle relative to one another such that their first ends are further apart than their second ends.
- 10
9. A marine craft as claimed in claim 8, in which the at least two tubes extend at an angle of up to and including 30 degrees to each other.
- 10
10. A marine craft as claimed in claim 8 or claim 9, in which the at least two tubes extend at an angle of up to and including 20 degrees to each other.
- 15
11. A marine craft as claimed in any one of claims 7 to 10, in which the first end of the or each tube is tapered, such that the cross sectional area of the or each tube reduces towards the hull.
- 15
12. A marine craft as claimed in any one of claims 7 to 11, in which the deformable structure comprises two or more deformable tubes extending between the hull and the structural component, the structure further comprising bracing means to resist lateral movement of the tubes towards one another during an impact.
- 20
13. A marine craft as claimed in any one of claims 7 to 12, in which the or each tube is manufactured from a metal such as steel, stainless steel, aluminium, or aluminium alloy.
14. A marine craft as claimed in claim 13, in which the or each tube is manufactured from a metal which is extruded.
15. A marine craft as claimed in claim 13 or claim 14, in which the or each tube is heat treated.

P01501WO 20040603 RevisedSpecification.wpd

16. A marine craft as claimed in any one of claims 7 to 12, in which the or each tube is manufactured from a plastics, or a reinforced plastics, or a composite material.
17. A marine craft as claimed in any one of claims 7 to 16, in which the or each tube has at least one internal web extending over at least part of its length.
- 5 18. A marine craft as claimed in any one of claims 3 to 6, in which the deformable structure comprises at least one deformable plate which extends between the hull and the structural component.
19. A marine craft as claimed in claim 18, in which the deformable structure comprises a plurality of spaced apart, deformable plates, each of which extend between the hull and the structural component.
- 10
20. A marine craft as claimed in claim 18 or claim 19, in which the or each plate is aligned generally vertically of the craft.
21. A marine craft as claimed in claim 18 or claim 19, in which the or each plate is aligned generally horizontally of the craft.
- 15 22. A marine craft as claimed in any one of claims 18 to 21, in which the or each plate is substantially planar.
23. A marine craft as claimed in any one of claims 18 to 21, in which the or each plate is corrugated.
24. A marine craft as claimed in claim 23, in which the deformable structure comprises two or more corrugated plates arranged such that the troughs and peaks of adjacent plates meet.
- 20

P01501W0 20040603 RevisedSpecification.wpd

25. A marine craft as claimed in claim 19, or any one of claims 20 to 24 when dependent on claim 19, in which bracing means is provided to resist movement of the plates towards each other during impact.
- 5 26. A marine craft as claimed in claim 25, in which the bracing means comprises a further plate extending between adjacent plates.
27. A marine craft as claimed in any one of claims 18 to 26, in which the or each plate is made of a metal, or a plastics, or a reinforced plastics, or a composite material.
- 10 28. A marine craft as claimed in any one of claims 1 to 6, in which the deformable structure comprises a cellular material, such as expanded polystyrene or polyurethane foam.
29. A marine craft as claimed in claim 28, when dependent on claim 3, in which the cellular material is bonded to the hull and to the structural component.
- 15 30. A marine craft as claimed in any previous claim, in which the hull defines a bow portion and the, or a, means for absorbing impact energy is located between the bow portion and the passenger area.
31. A marine craft as claimed in any previous claim, in which the hull defines a stern portion and the, or a, means for absorbing impact energy is located between the stern portion and the passenger area.
- 20 32. A marine craft as claimed in any previous claim, in which the hull defines a side portion, and the, or a, means for absorbing impact energy is located between the side portion and the passenger area.
33. A marine craft as claimed in any previous claim, in which the hull defines a bow

P01501WQ 20040603 RevisedSpecification.wpd

portion and a transverse bulkhead is provided which separates the passenger area from the bow portion, the, or a, deformable structure being mounted between the bow portion and the transverse bulkhead.

34. A marine craft as claimed in any previous claim, in which the means for absorbing impact energy is adapted to absorb all or some of the impact energy in a predictable and controlled manner.
35. A marine craft substantially as hereinbefore described with reference to and as illustrated in Figures 1 to 4, or Figures 5 to 7, or Figure 8, or Figure 9, or Figure 10 of the accompanying drawings.